

CENTRAL MACHINERY

®

WOOD BELT SANDER 6 X 48 INCHES

Model 40643

ASSEMBLY AND OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd., Camarillo, CA 93011

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For technical questions and replacement parts, please call 1-800-444-3353

Specifications

ITEM	DESCRIPTION
Motor	1 HP (peak), 110V, Single Phase, 60 Hz, 3,450 RPM
Speed	Belt: 1,440 FPM Disc: 1,850 RPM
Power Input	Continuous: 12 amps; No Load: 7.8 amps
Table	6 x 10-3/16 inches; Tilt: 45 degrees
Net Weight	139 lbs.
Power Switch	On/Off with removable locking key
Miter Gauge	0 to 60 Degrees
Miter Slots	3/4 inch; Bar: 6-3/4 (L) x 3/4 (W) inches
Sanding Pad	12 inches
Sanding Belt	Tilts from 0 to 90 Degrees

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Do not force tool.** It will do the job better and more safely at the rate for which it was intended. Do not use inappropriate attachments in an attempt to exceed the tool capacity.

6. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. Do not use a tool for a purpose for which it was not intended.
7. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
8. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists. Wear ear protection when sanding for long periods.
9. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
10. **Maintain tools with care.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
11. **Disconnect power.** Unplug when not in use.
12. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
13. **Avoid unintentional starting.** Be sure the switch is in the Off position when not in use and before plugging in.
14. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
15. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn On and Off properly.
16. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
17. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
18. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
19. **Avoid causing fires.** When sanding metals remove dust collecting bags and hoses from the machine. Sparks or hot metal could start a fire. Clean all wood dust before and after sanding metal.

20. **Avoid flammable liquids.** To avoid possible fires, never use sander near flammable liquids, vapors, or gases.

21. **Avoid breathing dust.** Wear a dust mask over your mouth and nose.

Note: Performance of this tool may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Unpacking

When unpacking, check to make sure the tool is assembled and all parts present. Refer to the Assembly Drawing at the end of this manual. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

Using Extension Cords

When using extension cords, they must have a minimum wire size depending on the amperage of the tool and the length of the extension cord. This size is signified by its AWG rating; the smaller the gauge, the greater the cable's capacity. The extension cord must have a grounding prong. For this Belt Sander, use an extension cord rated at 16 AWG for lengths up to 50 feet.

Assembly

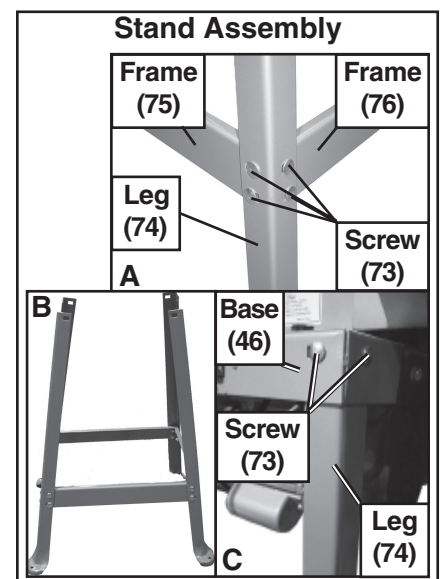
Stand Assembly

1. Join each Leg (74) to both a short Frame (75) and a long Frame (76) using 4 Screws (73), Nuts (12), and Washers (13), as shown in **Stand Assembly A**. The two short Frames should be on opposite sides from each other giving the stand a rectangular shape, if viewed from the top.

2. The Nuts should be snug and hold the stand together but not be fully tightened yet- **see Stand Assembly B**.

Warning! This entire unit weighs 139 Lbs. At least 2 able assistants should be used to put this tool on its stand safely.

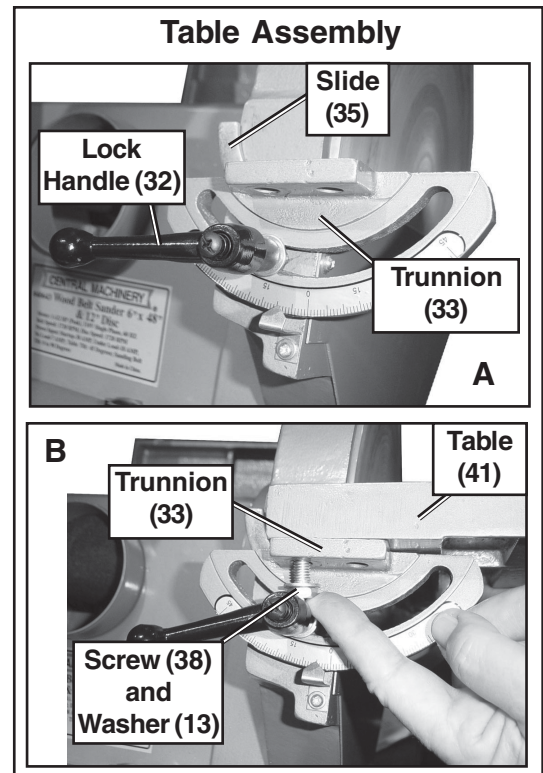
3. Have at least two assistants hold the Base (46) over the stand. Line up one of the narrower ends of the stand with one of the smaller ends of the Base (46) (for example, the end that the on/off switch is located on.) Place the top of the Leg (74) under the corner of the Base, lining up the



holes. Attach using 2 Screws (73), Nuts (12), and Washers (13). Repeat for all corners, leaving all hardware snug, not tight. Once all hardware is in place, tighten all Nuts securely, including the Nuts from step 1. After all hardware is secure, the assistants can release the base.- **see Stand Assembly C, previous page.**

Disc Sander Table Assembly

1. Remove both Trunnions (33) from the sides of the Table (41), set the Screws (38) and Washers (13) aside.
2. Place a Trunnion (33) on the side of the Disc Cover (42) so that the groove on the underside of the Trunnion fits over the Slide (35). Secure with a Lock Handle (32) and Washer (13). Leave the Lock Handle loose for now so the Trunnion can still pivot. (**See Table Assembly A.**) Repeat for the other side.
3. Place the Table (41) on top of both Trunnions (33) lining up the bolt holes. Reattach the Table to the Trunnions using the Screws (38) and Washers (13) set aside in step 1. (**See Table Assembly B.**) Level the table, as described in **Leveling Table Assembly** below, and tighten all hardware.



Operation

Sanding Safety Tips

1. Always maintain a maximum of 1/16 inch clearance between the table and the Sanding Belt or Disc.
2. Do not use the right side of the disc for sanding. The material could kick back.
3. Hold material securely while sanding to avoid kick back.

Leveling Table Assembly

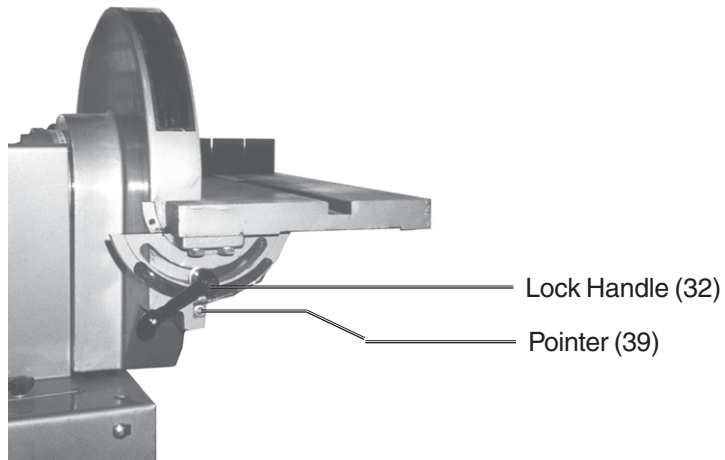
During this and other procedures, refer to the photo on the next page and the Assembly Drawing on the last page.

1. Place a combination square on the Table (41) so that it also touches the sanding Paper (23).

If the Table is 90 degrees to the Pad, the square is flush on the Pad.

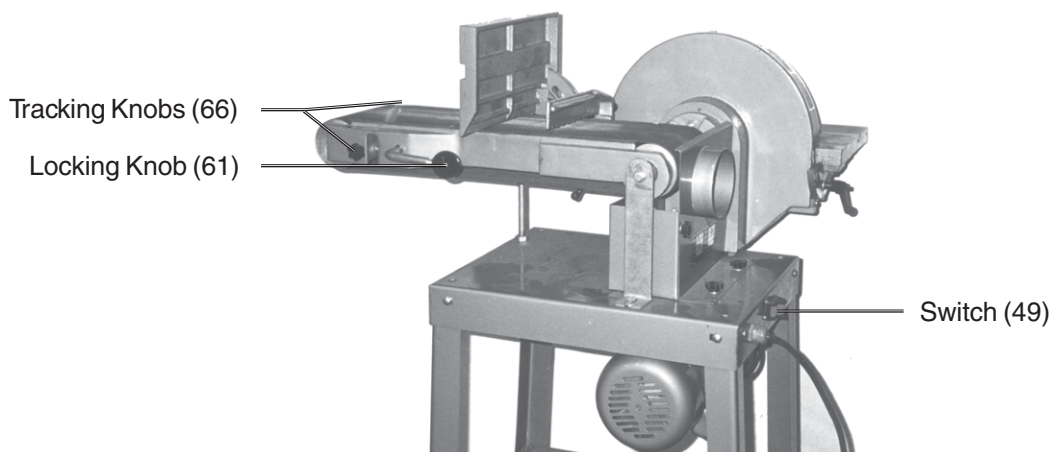
2. If the Table is not 90 degrees with the Pad, loosen the table angle Lock Handle (32) and tilt the Table until the square is flush with the Pad.

3. Retighten the Knob to secure the table.
4. Loosen the pointer screw below the Lock Handle and adjust so that it points to 90 degrees. Retighten screw.



Adjusting the Sanding Belt

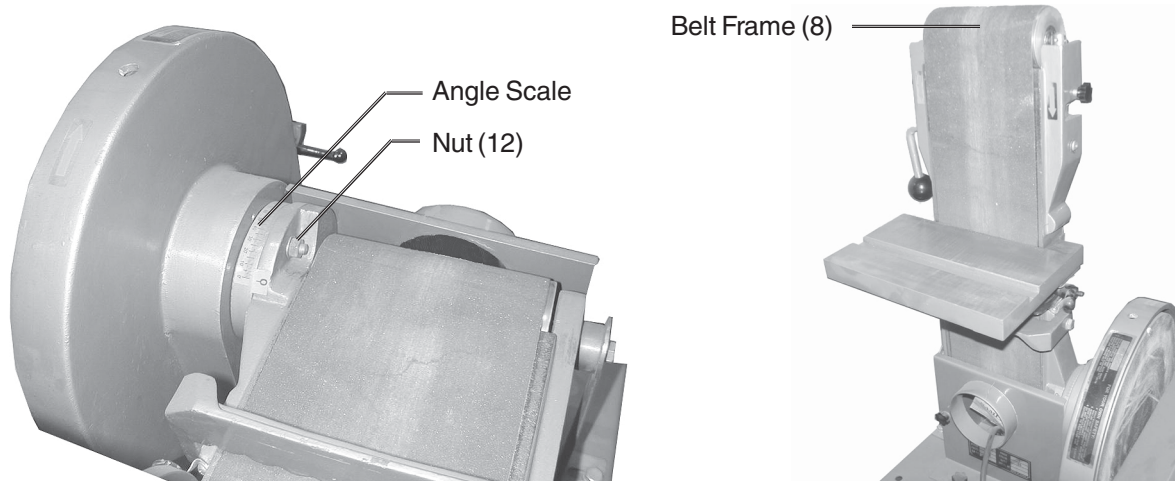
1. Turn the Belt Sander On.
If the belt looks like it was going to slide off either roller, the belt tracking needs to be adjusted (described in the next step).
2. Loosen locking Knob (61).
3. Turn the tracking Knobs (66) on both sides of the Idle Roller (64) until the belts rides on the center of the Idle Roller (64) and the Driving Roller (11).
4. Retighten the locking Knob (61).



Adjusting the Sanding Belt for Vertical Operation

Caution: Never make adjustments to the Sander without first unplugging the line cord from the electrical outlet.

1. Using a wrench, loosen Nut (12) until the Belt Frame (8) can be moved.
2. Push the Belt Frame to the desired angle (0 to 90 degrees). View Angle Scale.
3. Tighten Nut (12).
4. Begin sanding.



On/Off Switch

The locking On/Off Switch (49) needs to have the switch key inserted before the switch can be used. This feature prevents unauthorized use of the sander. The Locking Switch operates as follows.

1. Insert plastic Switch Key into locking Switch (49).
2. Press the Switch to the On position to start.
3. Press the Switch to the Off position to stop.
4. To lock switch in Off position, pull out the key and store in a secure place.

CAUTION: Never walk away from sander when the machine is running. Always lock the switch in the Off position when not in use.

Maintenance

1. Apply a light coat of paste wax to the worktable to make feeding stock easier.
2. Use compressed air to blow out dust and debris from sander and motor.

Mounting Sanding Disc and Guard

1. Remove hardware surrounding Sanding Disc (22).
2. Locate Sanding Paper disc (23) and peel backing off paper disc.
3. Align perimeter of Sanding Paper (23) disc over Sanding Disc. When aligned, press disc firmly onto disc.
4. Replace hardware and realign table.

Drive Belt Replacement

1. Using a Phillips screwdriver, remove the Screw (44) from Pulley Cover (47), and remove cover.
2. Loosen Knob (14) to allow Motor Pulley (58) to shift enough to place V-Belt (25) around it.
3. Place V-Belt around Pulley (26), then Motor Pulley (58).
4. Retighten Knob (14) finger tight.
5. Adjust tension of V-Belt by placing a standard screwdriver in the adjusting hole by pushing up on the screwdriver to apply tension to the V-Belt.
6. Tighten the Knob (14) completely.
7. Grab the V-Belt with two fingers on the outside-center and squeeze. There should be about 1/4 inch give to the V-Belt for proper tension.

NOTE: Too much tension on the V-Belt can load-down motor and cause possible damage. If the V-Belt is loose, it may fail prematurely.

8. Replace Pulley Cover (47).

Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
Sander does not operate	Not plugged in to wall outlet Locking key not inserted Power switch defective Motor or wiring problem	Plug into wall outlet Insert Locking Key Replace switch Take to a qualified technician
Motor slows when sanding	Timing Belt too tight Applying too much pressure on work piece	Decrease tension Apply less pressure to work piece when sanding
Sanding Belt runs off drums	Not tracking properly	Adjust tracking
Wood burns while sanding	Sanding Disc or Belt is loaded with debris	Clean or replace Disc or Belt
Sander makes excessive noise	Timing Belt too tight Bearings need oil	Decrease tension Oil bearings

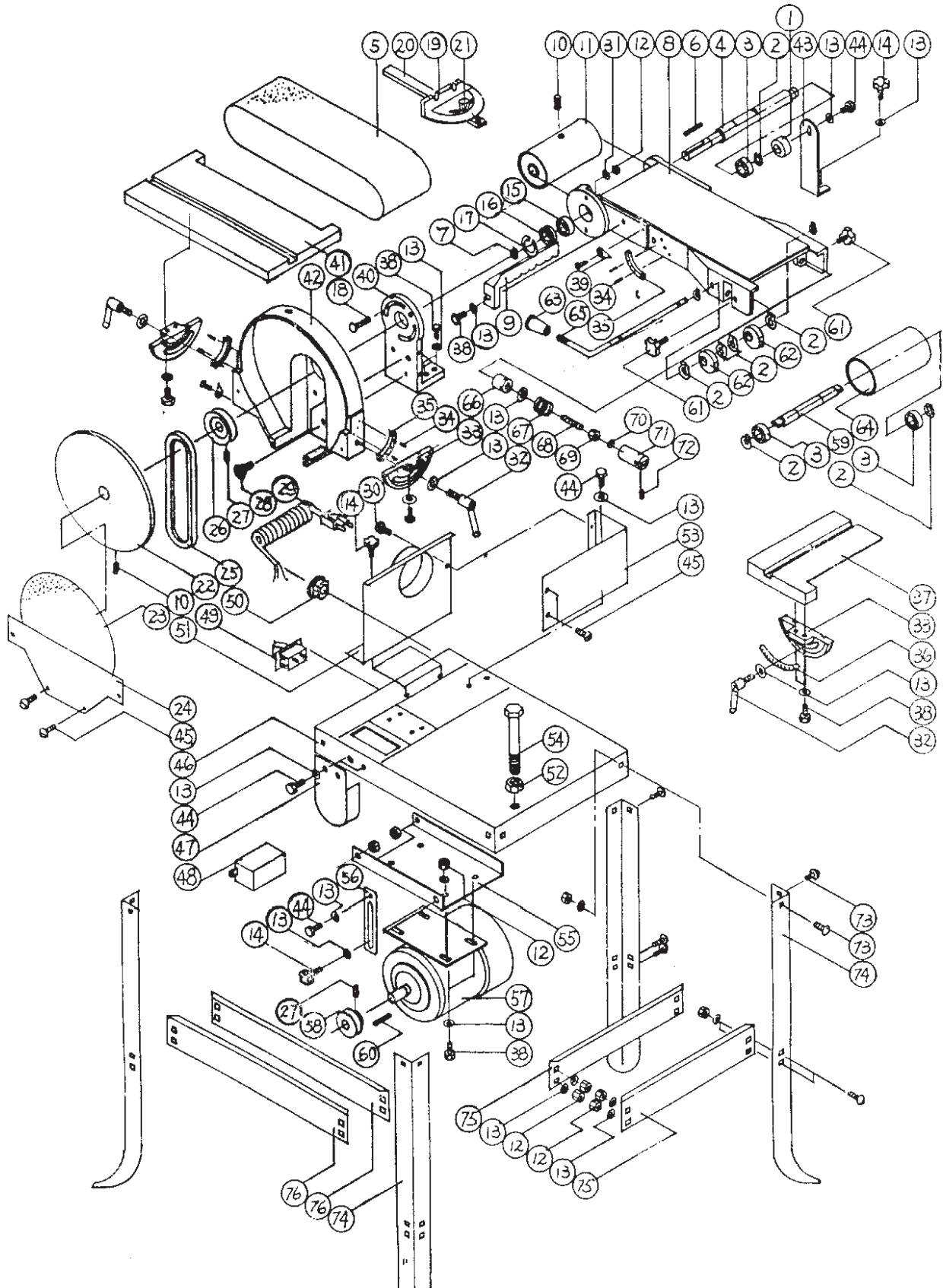
PLEASE READ THE FOLLOWING CAREFULLY

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Parts List

Part	Description	Qty	Part	Description	Qty
1	Cover	1	39	Pointer	3
2	Retaining Ring S-12	9	40	Bracket	1
3	Ball Bearing 6201Z	3	41	Table	1
4	Driving Roller Shaft	1	42	Disc Cover	1
5	Sanding Belt	1	43	Support Plate	1
6	Key 5X	1	44	Screw M8x10	10
7	Retaining Ring S17	1	45	Screw M5x10	10
8	Belt Frame	1	46	Base	1
9	Back Step	1	47	Pulley Cover	1
10	Set Screw M8x10	3	48	Switch Box	1
11	Driving Roller	1	49	Switch	1
12	Nut M8	30	50	Plastic Sleeve	1
13	Washer 8	50	51	Dust Hood	1
14	Knob M8x10	3	52	Nut M12	1
15	Ball Bearing	1	53	Dust Hood Base	1
16	Ball Bearing NR	1	54	Screw M12x165	1
17	C-clip	1	55	Motor Plate	1
18	Screw M8x40	2	56	Hang Up Bracket	1
19	Miter Guide	1	57	Motor	1
20	Miter Bar	1	58	Motor Pulley	1
21	Knob M8x15	1	59	Shaft	1
22	Sanding Disc, 12"	1	60	Key	1
23	Sanding Paper, 12"	1	61	Locking Knob M8x15	2
24	Disc Cover Plate	1	62	Crank Plate	2
25	V-belt A813	1	63	Knob	1
26	Pulley	1	64	Idler Roller	1
27	Set Screw M8x10	2	65	Lever	1
28	Screw M8x25	3	66	Tracking Knob	2
29	Power Cord	1	67	Spring	2
30	Knob M8x10	1	68	Set Screw M6x25	2
31	S-washer 8	2	69	Nut M6	2
32	Lock Handle	3	70	S-washer 6	2
33	Trunnion	3	71	Adjustment Bar	2
34	Pin, 4"	6	72	Set Screw M5x5	1
35	Slide	3	73	Screw M8x12	24
36	Angle Label	2	74	Leg	4
37	Table	1	75	Frame	2
38	Screw M8x25	13	76	Frame	2

Assembly Drawing



NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.